Appl. No. 10/538,202   Page 8 of 12
Amendment and/or Response
Reply to Office action of 12 December 2007

REMARKS/DISCUSSION OF ISSUES

Claims 1-20 are pending in the application.

Applicant acknowledges the indication that claims 3-8, 11-16 and 20 define patentable subject matter and would be allowable if rewritten in independent form including all features of their respective base claims, and any intervening claims.

Reexamination and reconsideration are respectfully requested in view of the following Remarks.

35 U.S.C. § 103

The Office Action rejects claims 1-2, 9-10 and 17 under 35 U.S.C. § 103 over Giorgianni et al. U.S. Patent 5,609,978 ("Giorgianni") in view Meynants et al. U.S. Patent 6,833,868 ("Meynants"), and claims 18 and 19 under 35 U.S.C. § 103 over Giorgianni in view of Meynants and further in view of Guimaraes et al. U.S. Patent Publication 2003/0156214 ("Guimaraes").

Applicant respectfully traverses those rejections for at least the following reasons.

Claim 1

Among other things, the method of claim 1 includes constructing a criteria function describing an error between desired color matching functions and a spectral response of an RGB filter set.

Applicant respectfully submits that the combination of cited art does not teach the construction of such a criteria function.

The Office Action cites FIG. 11, col. 11 lines 25-40 and the entirety of cols. 27-30 of Giorgianni as supposedly disclosing constructing a criteria function describing an error between desired color matching functions and a spectral response of an RGB filter set.

Applicant respectfully disagrees.

At the outset, FIG. 11 merely shows a particular set of sensitivity curves for a set of red, green and blue emulsion image recording units that is favored by

Appl. No. 10/538,202   Page 9 of 12
Amendment and/or Response
Reply to Office action of 12 December 2007

<u>Giorgianni</u>. It does not show any criteria function, any color matching functions, or any RGB filter set.

Furthermore, the text at col. 11 lines 25-40 describes colorimetric inaccuracy ranges corresponding to nine sets of spectral sensitivity curves. It does not disclose the recited criteria function or mention any RGB filter set. In that regard, it is noted that $\overline{\Delta E_{ab}^*}$ is not a "criteria function" – it is a numerical quantity having a specific value corresponding to the average color error from CIE 1976 produced by a photographic element having a set of image-recording units with a corresponding set of given spectral sensitivity curves, in response to a specified set of test colors of known spectral reflectance using a particular light source (<u>see</u> <u>Giorgianni</u> at col. 12, lines 1-22). Even more specifically, it is apparent that $\overline{\Delta E_{ab}^*}$ is not a criteria function "*describing an error between desired color matching functions and a spectral response of an RGB filter set.*"

Meanwhile, cols. 27-30 describe embodiments of various photographic elements, but again do not disclose any criteria function, any color matching functions, or any RGB filter set.

So no combination of <u>Giorgianni</u> and <u>Meynants</u> could produce the method of claim 1.

Also among other things, the method of claim 1 includes determining RGB filter set response characteristics based on the criteria function.

Applicant respectfully submits that the combination of cited art does not disclose such a feature.

The Office Action cites col. 31 lines 46-51 of <u>Giorgianni</u> as supposedly disclosing determining RGB filter set response characteristics based on the criteria function.

Applicant respectfully disagrees.

Col. 31, lines 46-51 disclose using a photographic element in combination with an optical filter such that the combination produces a desired set of spectral sensitivities.

Appl. No. 10/538,202   **Page 10 of 12**
Amendment and/or Response
Reply to Office action of 12 December 2007

The cited text makes no mention of any **RGB** filter set – indeed, it is difficult to fathom how an RGB filter set could be physically deployed with the disclosed photographic element to produce a useful image. The fact that an RGB filter set is not contemplated by <u>Giorgianni</u> is easily seen from inspecting the equations at the bottom of column 31 which clearly show that the exact same "optical filter" function sensitivity curve would be multiplied by each of the red, green, and blue sensitivity curves of the photographic element itself. Furthermore, the detailed discussion of suitable filters by <u>Giorgianni</u> at col. 32, lines 9-38 makes not mention or suggestion of any RGB filter set, and indeed contemplates the use of optical filters that pass all colors of the spectrum to the various emulsions of the photographic element.

Furthermore, the cited text also certainly does not disclose determining any RGB filter set response characteristics based on a criteria function. The text merely states that the effective spectral sensitivity curves of the combination of optical filter and photographic element can be combined or measured, and then these effective sensitivity curves can be used to calculate an average color error with respect to CIE 1976, and a noise gain factor.

So, again, no combination of <u>Giorgianni</u> and <u>Meynants</u> could produce the method of claim 1.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 1 is patentable over any combination of <u>Giorgianni</u> and <u>Meynants</u>.

<u>Claim 2</u>

Claim 2 depends from claim 1 and is deemed patentable for at least the reasons set forth above with respect to claim 1. Also, <u>Giorgianni</u> does not teach evaluating any criteria function to determine the RGB filter response characteristics that result in a minimum value of a constraint set criteria function. It is further noted that even if $\overline{\Delta E_{ab}^*}$ was a criteria function describing an error between desired color matching functions and a spectral response of an RGB filter set, that 3.1 would not be a "minimum value," and that <u>Giorgianni</u> does not teach determining any RGB filter function response characteristics that yield any minimum value (or that even yield a value of 3.1, for that matter).

Appl. No. 10/538,202   **Page 11 of 12**
Amendment and/or Response
Reply to Office action of 12 December 2007

Claim 9

Claim 9 is directed to a computer readable medium storing a computer program comprising computer readable code for executing the method of claim 1.

Accordingly, claim 9 is deemed patentable over any combination of <u>Giorgianni</u> and <u>Meynants</u> for at least the reasons set forth above with respect to claim 1.

Claim 10

Claim 10 depends from claim 9 and is deemed patentable for at least the reasons set forth above with respect to claim 9, and also for similar reasons to those set forth above with respect to claim 2.

Claim 17

Among other things, the system of claim 17 includes means for constructing a criteria function describing an error between desired color matching functions and a spectral response of an RGB filter set, and means for determining RGB filter set response characteristics based on the criteria function.

As explained above with respect to claim 1, the cited art does not disclose either constructing a criteria function describing an error between desired color matching functions and a spectral response of an RGB filter set, or determining RGB filter set response characteristics based on the criteria function.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 17 is patentable over any combination of <u>Giorgianni</u> and <u>Meynants</u>.

Claims 18 and 19

Claims 18 and 19 depend from claim 17.

Applicant respectfully submits that <u>Guimaraes</u> does not remedy the shortcomings of <u>Giorgianni</u> and <u>Meynants</u> for at least the reasons set forth above with respect to claim 17.
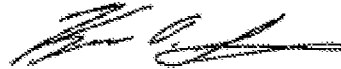
CONCLUSION

In view of the foregoing explanations, Applicant respectfully requests that the Examiner reconsider and reexamine the present application, allow claims 1-20 and pass the application to issue. In the event that there are any outstanding matters

Appl. No. 10/538,202   **Page 12 of 12**
Amendment and/or Response
Reply to Office action of 12 December 2007

remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these matters.

                                        Respectfully submitted,

                                        VOLENTINE & WHITT

By: _____
                                        Kenneth D. Springer
                                        Registration No. 39,843

VOLENTINE & WHITT
One Freedom Square
11951 Freedom Drive, Suite 1260
Reston, Virginia 20190
Telephone No.: (571) 283.0724
Facsimile No.:   (571) 283.0740